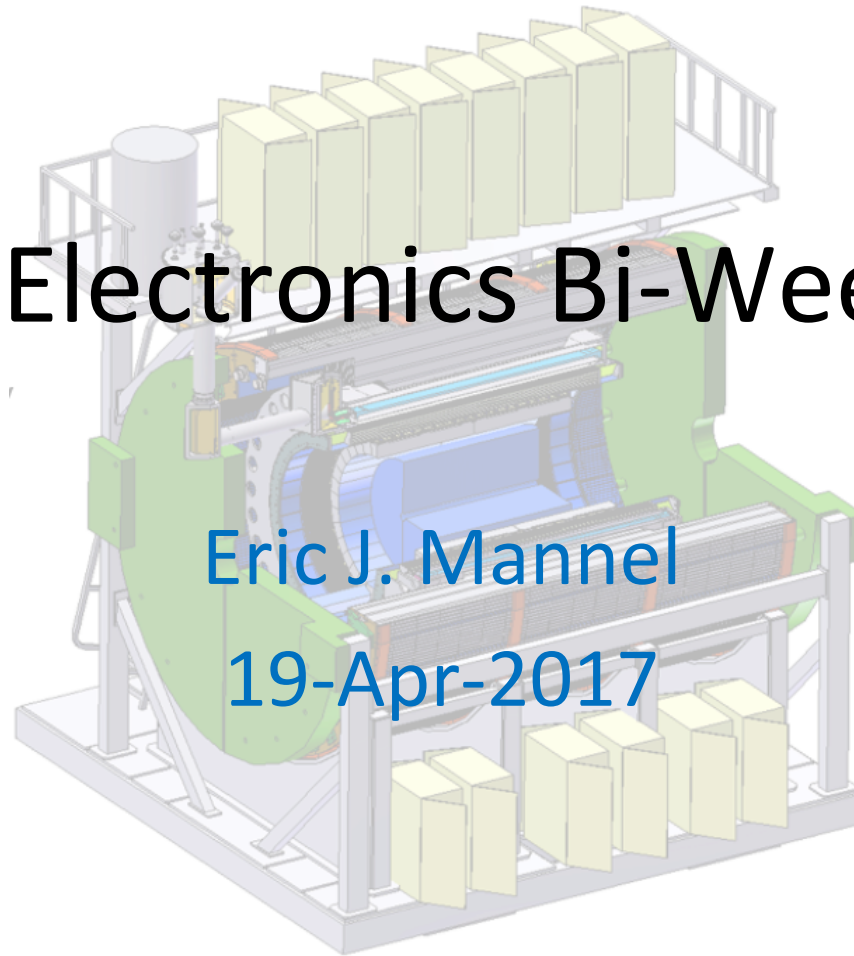


CalElectronics Bi-Weekly

Eric J. Mannel

19-Apr-2017



Preparations for CD-1

- BoEs are being updated:
 - WBS 1.5.1: Optical Sensors:
<https://docdb.sphenix.bnl.gov/cgi-bin/private/ShowDocument?docid=65> Updated
 - WBS 1.5.2: Front End Electronics
<https://docdb.sphenix.bnl.gov/cgi-bin/private/ShowDocument?docid=66> In progress
 - WBS 1.5.3: Digitizers:
<https://docdb.sphenix.bnl.gov/cgi-bin/private/ShowDocument?docid=66> Almost complete
- CDR is being updated
 - Describes what we are building
 - Removes alternative technologies

Preparations for CD-1...




- Project files are being updated
 - Updated costing
 - Linkage with
 - HCal production schedule: April 7
 - EMCal production schedule: April 18
 - Split interior/exterior cable/wire purchases into separate tasks
 - Places on-detector electronics on/close to critical path
 - SiPM Daughter Boards
 - Preamplifier/interface boards

Current Project Plan for SiPMs

	1.5.1.4	Order Sensors: Preproduction Prototype	Fri 3/17/17	Wed 9/6/17	120 days	4
	1.5.1.5	Q/A Delivered Sensors: Preproduction Prototype	Thu 9/7/17	Wed 9/20/17	10 days	5
	1.5.1.6	EMCal/HCal Sensors Tested and Delivered: Preproduction	Wed 9/20/17	Wed 9/20/17	0 days	6
	1.5.1.7	Write design change specifications for EMCAL/HCal sensors: Production	Thu 12/21/17	Mon 1/8/18	10 days	193
	1.5.1.8	Order Sensors: Production	Tue 1/9/18	Fri 3/22/19	300 days	8
	1.5.1.9	Sensors: Production Complete	Fri 3/22/19	Fri 3/22/19	0 days	9
	1.5.1.10	25% Sensors Received: Production	Tue 9/4/18	Tue 9/4/18	0 days	9SS+165 days
	1.5.1.11	50% Sensors Received: Production	Tue 10/30/18	Tue 10/30/18	0 days	9SS+205 days
	1.5.1.12	75% Sensors Received: Production	Wed 1/2/19	Wed 1/2/19	0 days	9SS+245 days
	1.5.1.13	Q/A EMCAL/HCal Sensors: Production	Wed 9/5/18	Fri 4/26/19	160 days	11,12FF-120 day
	1.5.1.14	25% Sensors Q/A Tested & Delivered: Production	Tue 10/30/18	Tue 10/30/18	0 days	14SS+40 days
	1.5.1.15	50% Sensors Q/A Tested & Delivered: Production	Wed 1/2/19	Wed 1/2/19	0 days	14SS+80 days
	1.5.1.16	75% Sensors Q/A Tested & Delivered: Production	Fri 3/1/19	Fri 3/1/19	0 days	14SS+120 days
	1.5.1.17	EMCal/HCal Sensors Tested and Delivered: Production	Fri 4/26/19	Fri 4/26/19	0 days	14FF,17,16
	1.5.1.18	Optical Sensor Procurement Complete	Fri 9/6/19	Fri 9/6/19	0 days	18,2

Current Project Plan for SiPMs

Preproduction Assembly

41	 	1.5.2.1.20	Assemble and Test EMCal SiPM Daughter Boards and Preamp Boards: Preproduction Prototype	Thu 9/21/17	Wed 11/1/17	30 days	7,37
							
		1.5.2.3.23	Assemble and Test HCal SiPM and Preamp Boards: Preproduction Prototype	Thu 11/2/17	Fri 2/2/18	60 days	96,5

Current Project Plan for SiPMs

Production Assembly

1.5.2.4.26	Assemble and Test HCal SiPM and Preamp Boards: Production	Mon 12/31/18	Mon 8/19/19	160 days	127,15
1.5.2.4.27	25% Hcal SiPM & Preamp Boards complete: Production	Wed 2/27/19	Wed 2/27/19	0 days	133SS+40 days
1.5.2.4.29	50% Hcal SiPM & Preamp Boards complete: Production	Wed 4/24/19	Wed 4/24/19	0 days	133SS+80 days
1.5.2.4.30	75% Hcal SiPM & Preamp Boards complete: Production	Thu 6/20/19	Thu 6/20/19	0 days	133SS+120 days
1.5.2.4.33	Hcal SiPM & Preamp Boards Complete: Production	Mon 8/19/19	Mon 8/19/19	0 days	133,134,136,137
 1.5.2.2.20	Assemble and Test SiPM Daughter Boards and Preamp Boards: Production.	Thu 2/14/19	Thu 1/2/20	220 days	62,15SS,16FF-18
 1.5.2.2.21	25% EMCal SiPM Daughter Boards and Preamps Delivered: Production	Thu 5/9/19	Thu 5/9/19	0 days	66SS+60 days
 1.5.2.2.22	50% SiPM Daughter Boards and Preamps Delivered: Production	Tue 8/6/19	Tue 8/6/19	0 days	66SS+120 days
 1.5.2.2.23	75% SiPM Daughter Boards and Preamps Delivered: Production	Wed 10/30/19	Wed 10/30/19	0 days	66SS+180 days
 1.5.2.2.24	100% SiPM Daughter Boards and Preamps Delivered: Production	Thu 1/2/20	Thu 1/2/20	0 days	66

Today's Discussion

- I don't expect to have the final plan today
- Would like to focus on “High Level” issues for SiPM testing:
 - How are we going to organize the effort?
 - What is the global strategy for the next couple of months to get a plan in place?
 - What are the minimal sorting requirements?
 - What resources do we need?
- What is the timeline
 - CDR draft mid-May
 - CD-1 “Dry Run” Mid June?
 - CD-1 Directors Review Week of Aug 7?
 - CD-1 Review Week of Nov 6
 - Preproduction starts in Fall of 2017

Next Steps

- Discussion with Hamamatsu to better understand delivery: Craig, Sean, John H, Eric
 - Plausible delivery schedule?
 - Wafer Identity coupled with limited test data?
 - Different packaging options?
- Discussion with Assembly house; Steve, Eric
 - Schedule, quantities, packaging
- Develop a viable test/sorting plan and schedule
 - Does not have to be detailed
 - Does have to have a defensible timeline that matches the overall assembly plan
 - It should indicate what resources may be required.